137 Storer, 11) all life zones, Lower Sonoran, Upper Sonoran, Transition, Canadian, Hudsonian, and Alpine-Arctic, represented in Tübatulabal-Palagewan area.

136 Fauna of area as whole also highly varied, but at present time several animal species Tübatulabal formerly used are either extinct or rare in foothill-valley areas. Jackrabbits, cottontails still abundant in these areas; blue squirrels numerous in foothills. In SM's father's time brown bears were "thick, like hogs" on floor of South Fork valley (SM). Prong-horned antelope (Antilocapra americana americana Ord.) formerly ranged in valley-foothill region, but have been extinct in Calif. since 1900 (Seton, 213, pl. 9). Mt. sheep or Nelson's bighorn (Ovis cervina nelsoni Merriam) formerly dwelt in foothills; California wapiti or dwarf elk (Cervus nannodes Merriam), which is found only in Kern co., Calif. (Anthony, 515), known to informants, but its range did not extend into Tübatulabal area (SM). Single species of deer found in area (SM); probably mule deer, also known as Rocky mt. mule deer or blacktailed deer (Odocoileus hemionus), primitive range of which, according to Seton, extended only into e. part of Tübatulabal area (Seton, 118, map 6), where it was hunted by Tübatulabal (Voegelin, 1935b, 227). Tübatulabal, however, also availed themselves of another species of deer, California mule deer (Odocoileus hemionus californicus) when they went W, beyond limits of their area, to gather acorns (SM).

Snowshoe rabbit (Lepus klamathensis), which lives in high Sierras, known to several informants.

Wild game birds of many varieties formerly plentiful in area; golden eagle nested in region; informants had seen bald eagles at Ventura, but none in Tübatulabal area.

311 241 ●511 [463] [462 231] [222] 177 Present economic status of group.- Several individuals have retained land granted them in 1893, and cultivate small garden patches, 1/2-1 acre in extent, on their grants. Principal crops are corn, beans, potatoes, tomatoes, peppers, wheat. Majority of young and middle-aged men work as cowboys and ranch hands on stock ranches in South Fork valley; women help men in cultivation of garden patches, and often raise turkeys, chickens, geese, chiefly for family use. In years when piñon crop is good, men, women, and children gather the nuts for their own use and to sell. In 1933 SM was making hair ropes, leather riatas to sell, cultivating garden; ES did a little beadwork, had garden, but relied on her husband, who worked on ranch, for support; LT and FP were being supported chiefly by LT's adult sons, who were ranch hands; MM worked occasionally on ranches, did road work at Bishop, etc. References to other types employment made in FP's, MM's autobiographies (p. 72; Voegelin, 1935 b, 223). None of Tübatulabal, so far as I know, receive any annuities. Census data for 1932 showed there was marked tendency among

Census data NS22 Tübatulabal NS22

511 for 1932 showed there was marked tendency among younger women to leave area and seek education, 177 permanent employment in Los Angeles, Bakersfield; 167 young men, on other hand, tended to remain within area; this was probably because opportunities for employment at home more favorable for men than for women. Altogether, although present economic status of Tübatulabal is low, especially in wintertime, yet they are not on the whole an indigent group, but continue to be economically independent, as before white contact.

BASIC SUBSISTENCE

[24] Tübatulabal hunting-gathering group; all forms agriculture lacking. Plant foods and game 511 formerly plentiful in valley-foothill regions (all informants); foods most frequently mentioned 222 by informants are acorns and piñons, deer, rab- 224 bits, fish. No famine tales; among Tübatulabal 226 plant-food resources better than in many parts of Calif. because this group had double access within w. and e. limits of area to acorns, central Calif. staple, and piñon nuts, Great Basin staple food. As piñons biennial crop, presence of acorns in area greatly augmented food resources. Furthermore, maturing of piñons and acorns is not simultaneous but successive, acorns following piñons, so that Tübatulabal could, and did, take advantage of both crops in early and late fall.

221 Yearly food cycle.- February to May. Mescal, 222 yucca whipplei stalks, tender immature pods of tree yuccas, various bulbs obtained in lower 224 foothills and floors of valleys by individuals. 226 Cached piñons, acorns being used. Large, small game hunted; geese obtainable in March. Fishing done by groups during April, from confluence of Kern and South Fork of Kern downstream (fig. 1). Family groups might also go W to Tulare lake to "eat ducks and fish" at this time.

May. Small seeds plentiful on floor, lower foothills of valleys; green pine nuts from Digger pine, juniper berries gathered in foothills; [512] green plants gathered; "people went out in large groups, leaving houses early in morning, returning in evening" (MM). Cached acorns, piñons still being used. Large, small game hunted, especially rabbits, in valleys and foothills; occasional camp-hunting, bulb-gathering expeditions E across Sierras to Indian Wells valley and Mohave desert. Some fishing during early May in augmented Kern.

June. Some small seeds still available, depending on relative lateness of season; raw tule roots growing around springs eaten; wild tobacco growing in valleys pruned. Stores of cached acorns, piñons nearing depletion. Rabbit drives with nets in valleys; birds, large game hunted; little fishing as rivers in full flood from melting snows.

[251] July to middle of August. Season par excellence for drying commodities; roots of rush